**Emerging Evidence on HKU5-CoV-2: Implications for Public Health and Future Preparedness**

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Dear Editor,

Recent reports name HKU5-CoV-2, a bat-derived coronavirus identified by Chinese researchers, a coronavirus with the same cellular entry process as SARS-CoV-2 [1].The observation is a cause for alarm in the area of risk associated with risks of zoonotic spillover and future pandemics. Preemptive measures need to be adopted in the current global health landscape in order to tackle risks associated with emerging coronaviruses. The identification of HKU5-CoV-2 reinforces the ongoing adaptation and diversification of bat-associated coronaviruses and their threat to global health [2].The role of bats in serving as a reservoir for coronaviruses has been highlighted in the past with other outbreaks, such as SARS in 2003 and COVID-19 in 2019, and these events have proven catastrophic in their spillover [3].The ability of HKU5-CoV-2 to compete with the receptors of SARS-CoV-2 on the angiotensin-converting enzyme 2 (ACE2) implies a mode of transmission via humans in the presence of future mutations [4]. It warrants close monitoring and One Health strategy in preparing against a pandemic. Global preparedness efforts remain inadequate despite ongoing research with this regard. What we learned from COVID-19 is early detection, transparent data sharing and coordinated international responses. In the context of this emerging virus, we propound the following recommendations:

* Strengthened Surveillance and Genomic Monitoring systems: Develop realtime genomic surveillance systems that can detect early mutations in bat-borne coronaviruses. Global integrated databases will support strategies to act quickly.
* Enhancing Laboratory Biosecurity Regulations: Developing additional safety protocols in high-containment laboratories to reduce accidental release events and ensuring appropriate international oversight of gain-of-function research involving zoonotic pathogens.
* Targeted Vaccination Research: Supporting the pursuit of broadly neutralizing vaccines against multiple coronaviruses to prevent future outbreaks.
* Reducing Spillover: Wildlife Trade and Habitat Protection: The introduction of a strong law and order approach towards wildlife markets and deforestation activity to reduce human-animal contact, a key spillover pathway.
* International Collaboration and Transparency: Reinforcing partnerships between nations to foster unrestrained data sharing, rapid response funding, and equitable access to countermeasures against pandemics.

Zoonoses, by their very nature, are unpredictable, and the emergence of HKU5-CoV-2 is a striking example of this. It will require a multidisciplinary and globally coordinated effort to prevent another pandemic. Such immediate, science-based action is critical to protect public health.

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